UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 23 2012

REPLY TO THE ATTENTION OF WW-16J

Ms. Colleen O'Keefe
Land and Water Management Division
Michigan Department of Environmental Quality
P.O. Box 30028
Lansing, Michigan 48909

Re: Public Notice No. 11-52-0075-P, Marquette County Road Commission

Dear Ms. O'Keefe:

This letter is being sent in response to the Michigan Department of Environmental Quality's (MDEQ) above-referenced Public Notice for a Clean Water Act Section 404 permit application dated January 23, 2012, in which the Marquette County Road Commission is proposing to construct a 21.4 mile long north-south primary county road between US-41 and County Road (CR) Triple A. The proposed project is located in Champion, Ely, Humbolt, and Michigamme Townships, Marquette County, Michigan.

As described in the public notice and the application, the direct impacts of the proposed County Road 595 route include 25.81 acres of impacts to wetlands and 22 stream crossings. To mitigate for these impacts, 49.4 acres of wetland creation and 3.53 acres of wetland restoration are proposed. A stream restoration project is also proposed. The U.S. Fish and Wildlife Service (FWS) and the U.S. Army Corps of Engineers (Corps) have provided EPA with their comments on this proposed public notice and permit application pursuant to Section 404(j) of the Clean Water Act, the regulations in 40 C.F.R. § 233, and further prescribed in the Memorandum of Agreement between the State of Michigan and EPA for implementation of the 404 permit program (CWA 404 MOA). The comments that follow represent the combined federal comments of EPA, the FWS, and the Corps.

In sum, the Federal agencies have concluded that the materials included in the application and accompanying analysis do not demonstrate that the County's preferred route is the least environmentally damaging practical alternative (LEDPA), and therefore, it is not possible at this time to provide the conditions necessary for issuance of this permit in accordance with CWA 404(b)(1) Guidelines. In addition, the project would lead to the significant degradation of aquatic resources, and the proposed wetland and stream mitigation would not fully compensate for the loss of aquatic function and value.

Accordingly, this letter constitutes a Federal objection to the issuance of a permit for this project. Pursuant to CWA § 404(j)(B) and the CWA 404 MOA Section 5(d)-(e), MDEQ may request that EPA hold a public hearing on this objection. If the State does not resubmit a revised permit to meet this objection within 30 days after completion of the hearing or, if no hearing is requested within 90 days after the date of such objection, the Corps may issue the permit in accordance with the requirements of CWA Section 404.

Alternatives Analysis

Because road construction is not a water-dependent activity, the CWA § 404(b)(1) Guidelines[1] require an applicant to demonstrate that practicable alternatives do not exist which are less damaging to the aquatic environment. The alternatives analysis should demonstrate that the County's preferred alternative meets the criteria for being the LEDPA while still meeting the project purpose. Finally, once the LEDPA is selected, the applicant must demonstrate that it has avoided and minimized impacts to the maximum extent possible and compensated for any unavoidable impacts.

Project Purpose

The stated project purpose within the AAPA is "to construct a primary county north-south road that1.) connects and improves emergency, commercial and recreational access to a somewhat isolated but key industrial, commercial and recreational area in northwest Marquette County to US-41; and 2.) reduces truck travel from this area through Marquette population centers." (AAPA, p.1) Because the project purpose affects the range of alternatives, it should not be too narrowly defined so as to limit alternatives. Qualifiers placed by the applicant within the AAPA include the stipulations that the road be within a defined four-mile corridor and that it be west of the Silver Lake Basin to provide access in the event of a "catastrophic flood event, such as occurred in 2003." (AAPA, p. 11). These restrictions unnecessarily eliminate alternatives which meet the stated project purpose, and may not be used to limit the range of practicable alternatives considered. We believe other alternatives will meet the project purpose and that MDEQ should ensure these are appropriately analyzed.

Alternatives Assessment

As described above, the alternatives analysis should demonstrate that the County's preferred alternative is the LEDPA. The application describes nine alternative routes in addition to the County's preferred alternative (Dishno, Peshekee, Mulligan Plains West-Sleepy Hollow, Mulligan Plains East-Sleepy Hollow, CR 550, CR 510, CR 510-Red Road-Sleepy Hollow-Wolf Lake Road, CR 510-Red Road-Gold Mine Lake Road, and CR 510-Red Road-Callahan Road). The federal agencies have the following comments regarding the assessment of these additional alternatives:

[1] 40 C.F.R. Part 230.

- Estimated impacts of the Dishno and Peshekee Routes include 47 and 68 acres of direct wetland impacts and 29 and 25 stream crossings, respectively. Because of the quantity of aquatic resource impacts associated with these two alternatives, we agree that the Dishno and Peshekee Routes may be considered "no build alternatives." (AAPA, p. 41)
- CR 550 and portions of CR 510 are existing primary all-season county roads. They would not fit within the purpose and need as stated because they would not reduce truck traffic through Marquette population centers, which is part of the project purpose.
- Estimated impacts of the Mulligan Plains West-Sleepy Hollow Route are not included within the Alternatives Analysis, but it was clear to EPA during pre-application discussions that direct aquatic resource impacts were lower for this alternative than those for the County's preferred alternative. We understand that this alternative was not pursued because the Nature Conservancy holds a conservation easement bisecting the route.
- Estimated impacts of the Mulligan Plains East-Sleepy Hollow Route include 25.2 acres of wetlands impact and 12 stream crossings. The application eliminates this alternative primarily because of "an extremely difficult crossing of the Yellow Dog River" (AAPA, p.54). Although a bridge would clearly add cost to any new road, it is not clear that this additional cost would make the project infeasible. Also, our review of available information indicates that the aquatic resource impacts may have been overestimated for this alternative, and indirect impacts of this alternative may be fewer than for the County's preferred alternative. The AAPA should address the issues of bridge cost and reassess aquatic resource impacts.
- The CR 510-Red Road-Sleepy Hollow-Wolf Lake Road alternative is not given due consideration within the alternatives analysis, in large part, because of the additional length, which would increase construction and maintenance costs. Despite the additional distance between the Kennecott Mine and Humboldt Mill, this alternative meets the stated project purpose and may be practicable. Estimated impacts include 13.04 acres of direct wetland impacts and 35 stream crossings. Because this alternative would include improving existing CR 510 for northern portion of the route, indirect impacts to aquatic resources would be fewer than would be expected with new road construction. The applicant needs to provide a more comprehensive evaluation of this alternative.
- CR 510-Red Road-Gold Mine Lake Road and CR 510-Red Road-Callahan Road alternatives were eliminated from consideration during the Woodland Road alternatives discussion based on a comparison of wetlands within a 300 foot corridor along the proposed route. This comparison only included the two alternatives described here and CR 510-Red Road-Sleepy Hollow-Wolf Lake Road, and it concluded that, of the three alternatives, CR 510-Red Road-Sleepy Hollow-Wolf Lake Road had the fewest aquatic resource impacts (Appendix E). EPA agrees that these alternatives do not warrant further consideration at this time.

The applicant should also consider the indirect and cumulative impacts before eliminating alternatives. The marginal increase of aquatic impacts from expanding an existing road may be preferable to impacts to relatively undisturbed aquatic systems. For example, CR 510-Red Road-Sleepy Hollow-Wolf Lake Road alternative contains more stream crossings than the County's preferred alternative, but indirect and cumulative stream impacts may be fewer than the preferred alternative.

The alternatives analysis describes practicable alternatives in addition to the County's preferred alternative that would meet the project purpose. These include the Mulligan Plains East-Sleepy Hollow Route and the CR 510-Sleepy Hollow-Red Road-Wolf Lake Road Route, which have fewer impacts to aquatic resources. Based on our review, the materials included in the application do not demonstrate that the County's preferred route is the LEDPA.

Impacts Analysis

Direct Impacts

The County's preferred alternative would directly impact 25.81 acres of wetlands within the Escanaba, Michigamme, Dead, and Yellow Dog River Watersheds. Of the 25.81 acres of wetland impacts proposed, 0.35 acres are due to the associated ATV trail relocation, which would be permitted separately. According to the application, Appendix M, many wetlands along the proposed route are within the Michigan Rapid Assessment Method's highest functional scoring range (33 of 70 wetlands evaluated for this proposed project). Appendix M also describes wetland community types that were assessed. These included Hardwood-Conifer Swamp, Northern Shrub Thicket, Northern Wet Meadow, Hardwood Swamp, Wet Meadow, Rich Conifer Swamp and Northern Hardwood Swamp (black ash swamp). According to Michigan Natural Features Inventory, Hardwood Conifer Swamp, Rich Conifer Swamp, and Northern Hardwood Swamp are listed as S3 (vulnerable to extirpation in Michigan). Approximately 75% of the proposed wetland impacts from this proposed project are to forested wetland types which are difficult to replace resources.

In total, 22 stream crossings are proposed for the Middle Branch of the Escanaba River, Second River, the Trembath Lake Outlet, Kipple Creek and two tributaries, a tributary to Voelkers Creek, the Dead River, Wild Cat Canyon Creek and its tributary, Mulligan Creek and two tributaries, and the Yellow Dog River. These stream crossings include 8 new crossings and 14 replacement crossings.

In its April 5, 2012 letter to Peter Swenson, EPA, FWS notes that a significant amount of clearing, excavation, and fill will be required in the construction of CR 595 as currently proposed. The proposed project would include clearing, excavation, and fill along the entire 21.4 mile route to construct the roadway, shoulder, and ditch, impacting a minimum of 171 acres (21.4 miles long, minimum 66-feet wide) (AAPA, p. 102). Of the proposed 21.4 mile route, 13.0 miles are not within 50 feet of existing vehicle-accessible roads.

Although the application outlines measures to minimize likely impacts to aquatic resources, we remain concerned that the magnitude of the proposed impacts to the relatively un-impacted aquatic resources along the route is significant..

Indirect Impacts

The application describes potential indirect impacts to wetlands such as sedimentation and changes to plant communities. Although the applicant has proposed methods to minimize these indirect impacts, the project will have long-term impacts on hydrology and water quality (e.g. road-salt, sediment, oil inputs) that would degrade habitats adjacent to the proposed road. A particular concern is that disturbances and changes to wetland flow patterns due to floodplain compensating cuts will negatively impact adjacent wetlands (Appendix B). Other changes in flow patterns due to peat excavation and placement of equalization culverts may decrease wetland quality.

The application briefly discusses the possibility of vehicles along CR 595 spreading invasive species along the proposed route. This would significantly impact wetlands adjacent to the proposed road. The AAPA states that post-construction monitoring will be done as warranted. There are no specifics on the monitoring and mitigation for invasive species, and we remain concerned that natural communities adjacent to the road will be disturbed by invasive species. Accordingly, the applicant should provide specific details regarding the monitoring and mitigation invasive species.

A method for assessing fragmented wetlands is discussed on page 76 of the AAPA. The AAPA describes that the creation of any fragment of a wetland smaller than 0.05 acres would be considered a direct impact, and indirect hydrologic impacts would be minimized via wetland equalization culverts, but we are concerned that functions of fragmented wetlands greater than 0.05 acres may still be impacted by the proximity of the road footprint. The applicant should fully analyze the effects of the proposed project on fragmented wetlands.

Regarding streams, we are concerned about the loss of stream functions due to the lengths of bridges and culverts and due to changes in hydrology and water quality. Although "Stream Simulation Methodology" and storm water best management practices (BMPs) are proposed, construction, traffic, and longer sections of stream enclosure will have impacts downstream in addition to the direct stream loss due to the enclosures. Accordingly, the applicant should provide a complete discussion of the loss of stream functionality.

Wildlife Impacts

In their comments to EPA, FWS noted that the completed avian surveys identified a large number of species, which can be attributed to the diversity of habitats along the proposed CR 595 route, and that the large amount of habitat clearing required for the proposed project will have negative impacts on migratory birds. Under the Migratory Bird Treaty

Act of 1918, as amended, it is unlawful to take, capture, kill, or possess migratory birds, their nests, eggs, and young. Prior to any permit issuance for a project within northern Marquette County, MDEQ should coordinate with FWS to address this concern.

Amphibian and reptile (turtle) mortality is also a likely impact of traffic from a new road, such as CR 595. As an example of this, FWS specifically mentions wetland W-B33-1 at station 1496+30 because 25 feet of vertical fill would be required above the current grade. This elevation would create a barrier that is likely to inhibit animal movement. With a design speed of 55 mph, the proposed road is also expected to increase the number of vehicle collisions with other wildlife including white tailed deer, gray wolf, and moose. For any permit issued, the applicant should coordinate with Michigan Department of Natural Resouces to identify any areas with higher relative densities of wildlife and to develop any potential mitigative measures.

Endangered Species Act

FWS has notified us that Kirtland's warbler (*Setophaga kirtlandii*) and Canada lynx (*Lynx candaensis*) are protected under the Endangered Species Act and these species have the potential to be present within the proposed CR 595 corridor.

Kirtland's warber is a Federally-listed endangered species that nests in large stands (>80 acres) of young, dense jack pine (*Pinus banksiana).* FWS has recommended that the applicant conduct additional Kirtland's warbler surveys prior to construction and include habitat surveys along both the proposed route and any alternative route.

Canada lynx is a Federally-listed threatened species that is known to disperse across the Upper Peninsula and has been observed in 2003 and 2010. FWS recommends that the applicant analyze potential impacts of the proposed road to dispersing lynx.

Prior to any permit issuance for a project within northern Marquette County, MDEQ should coordinate with FWS to address any potential impacts to Federally-listed species and should provide FWS with the surveys and analyses requested above.

Compensatory Mitigation

Under the CWA 404(b)(1) Guidelines, our review of a project must follow the sequence of avoidance, minimizing unavoidable impacts, and when the impacts have been avoided and minimized to the maximum extent practicable, EPA may consider compensation for those unavoidable impacts to the aquatic resources. Although the applicant has not demonstrated that the County's preferred alternative is the LEDPA, our preliminary comments regarding the proposed compensatory mitigation are included below.

The proposed compensatory mitigation includes 49.4 acres of wetland creation at five locations and 3.53 acres of wetland restoration at 26 locations along the proposed route. This makes the proposed wetland replacement ratio 2:1 for forested wetlands and 1.5:1

for all other wetland types. Compensatory mitigation for stream impacts includes replacing undersized culverts as part of road construction and a bridge to replace 3 culverts and stream bed reconstruction within the Salmon Trout River.

Wetland creation attempts to establish wetlands in a landscape position that typically would not support fully functioning wetlands. Forested wetlands such as northern hardwood swamps and rich conifer swamps are very difficult to restore, and we believe creation of such wetland has an even smaller chance of success. All of the proposed creation sites would require extensive excavation (from 2 to 32 feet), primarily through sandy soil. In addition, two of the creation sites are located along the proposed CR 595 route, which increases the likelihood that road run-off (i.e. road-salt and other pollutants) will adversely impact these compensation sites. Because the proposed compensatory mitigation relies primarily on forested wetland creation, the probability of success of replacing the lost wetland functions is low.

Also, the applicant must adequately assess and compensate for indirect impacts, such as wetland and habitat fragmentation, sedimentation and pollutant contribution to adjacent aquatic resources, and changes in flow patterns

For example, the AAPA discusses Best Management Practices (BMPs) to minimize but not eliminate negative impacts to stream functions (AAPA, p. 223). The applicant does not adequately address, however, how the loss of stream length due to 22 crossings would be compensated through the proposed replacement of undersized culverts with longer appropriately sized culverts or through the East Branch Salmon Trout River reconstruction project. The federal agencies believe that additional stream mitigation would be needed to compensate for the new and longer replacement stream enclosures.

Therefore, as described above, the proposed compensatory mitigation will not sufficiently compensate for the loss of aquatic resources associated with CR 595. To address these concerns, the applicant would need to provide a significantly revised mitigation package that fully compensates for expected impacts.

Summary

Based on our review of the CR 595 road project, the applicant has not demonstrated that the project is the LEDPA, and therefore, it is not possible at this time to provide the conditions necessary for issuance of this permit in accordance with CWA 404(b)(1) Guidelines. As presently proposed, the project would lead to the significant degradation of aquatic resources, and the proposed wetland and stream mitigation would not fully compensate for the loss of aquatic function and value.

For the reasons outlined above, this project does not meet the 404(b)(1) Guidelines and we object to the issuance of a permit for this project.

cc:

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